OCTOBER 2002 PROGRESS REPORT
NOAA Center for Tsunami Inundation Mapping Efforts

The Center for Tsunami Inundation Mapping Efforts (TIME) was created to assist the Pacific states in the development and maintenance of tsunami hazard maps. The following paragraphs detail the accomplishments of TIME for FY2002 and plans for FY2003. The first section provides an overall summary; subsequent sections provide point-by-point details by state.

Overview

Grid Development and Modeling Efforts

TIME completed and distributed 25 bathymetry/topography elevation grids in FY2002. TIME plans to develop approximately 40 grids in FY2003.

TIME completed 1 modeling effort and is in development of another for Washington in FY2002. TIME plans to begin another modeling effort for Washington in FY2003.

Tables 1 and 2 detail grid and modeling efforts for FY2002-2003. Table 3 categorizes the time spent on various tasks over the past year.

State	*Mapping Effort*	*Number of Grids*	*Grid Status*	*Modeling Status*
Alaska	Homer-Seldovia	6	Under Evaluation	In Progress
Alaska	Seward	3	In Progress	In Progress
California	Southern California (Orange, San Luis Obispo, Ventura Counties)	14	Complete	In Progress
Washington	Elliott Bay (Seattle)	2	Complete	Complete
Washington	Eastern Straits of Juan de Fuca (Bellingham, Anacortes, Whidbey Island)	3	Complete	In Progress

Table 1. FY2002 Grid Development and Modeling.

State	*Proposed Mapping Effort*	*Number of Grids*	*In-house Modeling Effort?*
Alaska	Sitka	8	No
Alaska	Yakutat	8	No
Alaska	Whittier	8	No
California	Central or Northern California	12	No
Washington	Area of Puget Sound?	3	Yes

Table 2. FY2003 Proposed Grid Development and Modeling.

TIME has been actively pursuing new data from the National Ocean Service (NOS) and U.S. Geological Survey (USGS). A request to NOS was made for LIDAR and bathymetric surveys for Sand Point, Alaska. High-resolution DEMs from USGS in other areas of Alaska were also requested. TIME is constantly seeking high-resolution data for all affected states. This includes research into the USGS Shuttle Radar Topography Mission, Puget Sound LIDAR consortium, U.S. Army Corps of Engineers bathymetric surveys and SHOALS project, and the joint USGS/NOS Bathy-Topo Project.

TIME also participated in two workshops focusing on tsunami hazard sources in Skagway, Alaska, and Puget Sound, Washington.

Alaska

FY2002

- Participated in Skagway Tsunami Hazard Workshop
- Wrote a grid development report for inclusion in the Kodiak Tsunami Hazard Map reports by ATMT.
- Developed six bathy-topo grids for the Homer-Seldovia modeling effort. This included digitizing contours from six USGS digital raster graphics and 59 local orthophoto maps.
- Developed a data assessment report for Alaska's remaining priority areas.
- Requested LIDAR and bathymetry surveys from NOS for Sand Point
- Requested high-resolution topographic DEMs from USGS for Seward, Sitka, and Homer-Seldovia.
- Began grid development for Seward.

FY2003

- Complete grid development for Homer based on discussion of LIDAR data acquisition.
- Complete grid development for Seward.
- Begin grid development for one or two other priority areas (Sitka, Whittier, and Yakutat) based on ADES/TIME/ATMT discussions.

California

FY2002

- Developed fourteen bathy-topo grids for southern California.
- Began data assessment for Northern California.
- Provided support and updates for the MOST model at USC

FY2003

- Develop approximately twelve grids for northern or central California based on data assessment and priorities.
- Provided support and updates for the MOST model at USC

Oregon

FY2003

- Combine 10-meter topographic DEMs into single grid for use in GIS tools. Archive for possible future requests from Oregon.

Washington

FY2002

- Distributed two grids, modeling results, and GIS products for Elliott Bay to Washington.
- Developed three grids for eastern Straits of Juan de Fuca. Modeling effort for Bellingham, Anacortes, and northern Whidbey Island is in progress.
- Participated in Puget Sound Landslide Sources Workshop to assist in determination of future priorities.
- Developing Puget Sound Tide Model.

FY2003

- Complete modeling effort for Bellingham, Anacortes, and northern Whidbey Island.

- Begin grid development for next priority.

FY2002 Accomplishments for Each State

The following summarizes a few inundation mapping items that each state has accomplished in FY2002. Refer to their individual reports for more information.

Alaska (as reported by Elena Suleimani)

- The Kodiak Inundation Mapping report was completed in April after the corrections to the maps were introduced by the Kodiak's city engineer.

- We have established the hypothetical tsunami sources for the Kachemak Bay modeling: the 1964 earthquake and the hypothetical earthquake at the Border-Ranges fault.

- Preliminary runs have been performed for Homer and Seldovia 3-second grids for the above scenarios.

- Duncan Marriott has been working on data collection and assessment of various sources for FY2003 communities.

California (as reported by José Borrero)

- Monterey is complete. Ventura and Orange county will be done by the end of 2002.

- Once a newer version of the MOST model is implemented, San Luis Obispo will be next. Northern California and revisit of San Diego, Los Angeles, and Santa Barbara will follow.

Hawaii (as reported by Brian Yanagi)

- Near completion of a UH contract to use 2-dimensional modeling techniques to compare existing 1-dimensional inundation maps used for evacuation maps in the telephone book.

Oregon (as reported by George Priest)

- Detailed inundation simulations for three Cascadia sources were completed by Oregon Graduate Institute for Science and Technology for Coos Bay.

- The Coos Bay inundation map was published by the Oregon Department of Geology and Mineral Industries; a public workshop was held to explain the results to the media and public.

- OGI began work on a grid for Alsea Bay (Waldport). We contracted for a bathymetric survey, which has been completed. The simulation should proceed this winter.

Washington (as reported by Tim Walsh and George Crawford)

- Distributed model results and maps to local emergency managers for Neah Bay, Port Angeles, Port Townsend, La Push and Seattle.

- Published tsunami hazard maps for Port Angeles and Port Townsend in August, 2002.

- Contracted with TIME for inundation modeling of Eastern Straits of San Juan de Fuca, including Whidbey Island, Bellingham, and Anacortes.